

1737

**CORRECTED****ABSTRACT OF THE DISCLOSURE**

A method of producing a heating element made from molybdenum silicide and alloys thereof, and which includes aluminum oxide on its surface. A material is produced that contains substantially  $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$  and  $\text{Al}_2\text{O}_3$  by mixing a mixture of a silicon and molybdenum compound with an aluminum compound. Either of the silicon and molybdenum compounds include  $\text{Mo}(\text{Si}_{1-y}\text{Al}_y)_2$  and are mixed with one or both of an aluminum compound in the form of  $\text{Al}_2\text{O}_3$  or  $\text{Al}(\text{OH})_3$  and optionally the compounds  $\text{SiO}_2$ ,  $\text{Si}$ , and  $\text{MoO}_3$ , or by virtue of the mixture of the silicon and molybdenum compound containing  $\text{MoO}_3$  and  $\text{Al}$  and  $\text{Si}$  and/or  $\text{SiO}_2$ . The input components together have a degree of purity corresponding to at least 98%. The mixture reacts exothermically and/or by being sintered, so that exchange reactions take place to form the compounds  $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$  and  $\text{Al}_2\text{O}_3$ , where  $x$  lies in the range of 0.4 - 0.6.